NATIONAL WEATHER SERVICE
320A SPARKMAN DRIVE
HUNTSVILLE, AL 35805

ALABAMA WINTER WEATHER AWARENESS WEEK

November 29 – December 3, 2004

The National Weather Service and the Alabama Emergency Management Agency will observe the week of November 29 through December 3, 2004, as Winter Weather Awareness Week in Alabama as proclaimed by Governor Bob Riley. We ask your help in spreading information to the public about winter weather preparedness.

As a southern state, the frequency of severe winter weather events is relatively low. However, in the past, winter weather has been a major cause of weather related deaths, injuries, and property damage in Alabama.

Before we get into the heart of this winter season, now is the time to prepare ourselves for the dangers and hazards associated with winter weather. Since the past several winter seasons have been relatively quiet, the need to reacquaint ourselves with winter weather safety is much higher.

Special Thanks

Winter Weather Awareness Week in Alabama is one of three annual awareness campaigns intended to draw attention to weather hazards. This week focuses on winter weather threats such as ice, snow, and severe cold. The National Weather Service leads in this event, but additional important partners have joined us to improve the public service effort.

In recognition of their commitment to public service and safety, the National Weather Service would like to recognize those organizations that have contributed in meaningful ways to the 2004 edition of Winter Weather Awareness Week in Alabama.

Tennessee Valley Authority
Alabama Emergency Management Agency

Media Conference Kickoff

Winter Weather Awareness Week will begin with a media conference on November 29th 9:00 AM in the conference room of Madison county Emergency Management Agency, 320 Fountain Drive, Huntsville, AL. Representatives from the National Weather Service, the Alabama Emergency Management Agency, and the North Alabama Emergency Management Agencies will be on hand to officially recognize the beginning of Winter Weather Awareness Week in Alabama.

Cold Winter Facts for Alabama

Alabama is no stranger to winter's deadly grip. Historically, severe winter weather conditions can affect some or all of the state. Alabama has been fortunate during the past couple of winters and has only experienced a few significant winter storm threats, primarily over northern portions of the state.

One of the most tragic outbreaks of cold weather in Alabama occurred January 10-18, 1982, when 20 people died and 300 were injured. 16,000 people were forced into emergency shelters and storm damage totaled 78 million dollars. The arctic outbreak of December 19-21, 1981, took the lives of at least 2 people in unheated homes and at least 17 people suffered injuries caused by slipping and falling on ice.

At least 5 people perished in the extreme cold of January 19-22, 1985, that rewrote low temperature records over much of Alabama. This storm brought ice accumulations up to one foot in Lauderdale County. Bridges were coated with ice well into Central Alabama and four people were killed in traffic accidents on icy roads.

An outbreak of severe cold occurred December 22-25, 1989, killing five people in Alabama. Low temperatures for two consecutive nights dropped to the 0 to –5 degree range over the northern third of Alabama and into the single digits along the Gulf Coast. Daytime high temperatures reached only into the teens. Brisk northerly winds created wind chills ranging from 0 degrees to 15 degrees below zero across the entire state.

Just over 10 years ago in March, 1993, the state was held in the grip of record cold and snow. Much of the state was completely paralyzed when more than a foot of snow blanketed Central Alabama. The strong winds that accompanied the heavy, wet snow downed trees and power lines leaving many people without power for days. Record cold followed the snowfall from the "Storm of the Century". Activities came to a halt for several days until the snow began to melt and emergency equipment could begin to clear the roadways. When it was over, 14 people had died and an unknown number of people were injured. Property damage exceeded 50 million dollars. During the winter storm, the American Red Cross in Alabama sheltered over 12,000 people in 108 facilities and served over 36,000 meals.

For Your Information

This booklet contains materials useful during the Winter Weather Awareness Week campaign and at other times, too. You are invited to contact the National Weather Service, state and county emergency management agencies, and local Red Cross chapters for interviews and for answers to your questions. National Weather Service personnel, local emergency management and nearby Red Cross Chapter are available for weather awareness programs to civic and industrial organizations, schools, hospitals, and others interested in weather safety.

Each county in Alabama is served by a designated National Weather Service Office as identified here:

Birmingham

Huntsville

Mobile

Tallahassee, FL

Contact Information:

Jason B. Wright or Ken Graham	**Birmingham**	**205-664-3010**
Tim Troutman or John Gordon	**Huntsville**	**256-890-8503**
Gary Beeler or Randall McKee	**Mobile**	**334-633-6443**
Bob Goree or Paul Duval	**Tallahassee, FL**	**850-942-8999**

For the **Alabama Emergency Management Agency**, contact from across the state can be made with:

Scott Adcock	**Clanton**	**205-280-2247**

For the **American Red Cross**, contact from across the state can be made with:

Cindy Bahri	**Birmingham**	**205-458-8263**

Information Resources on the World Wide Web

For additional resourece, the following web sites are available:
NWS Huntsville: www.srh.noaa.gov/hun
NWS Birmingham: www.srh.noaa.gov/bmx
NWS Mobile: www.srh.noaa.gov/mob
NWS Tallahassee: www.srh.noaa.gov/tlh
Alabama EMA: www.ema.alabama.gov
Birmingham Red Cross: www.redcrossbirmingham.org

NOAA Weather Radio

NOAA Weather Radio, the voice of the National Weather Service, provides continuous weather broadcasts 24 hours a day, every day of the year.

To receive the broadcasts originating from the National Weather Service, you need a special radio capable of receiving signals in the Very High Frequency (VHF) public service band. In Alabama, 162.400, 162.425, 162.450, 162.475, 162.500, 152.525, and 162.550 megahertz are the frequencies in use for NOAA Weather Radio broadcasts. Alabama is served by 21 transmitters located as shown in the box below. Approximately 95 percent of the people in Alabama are within range of a weather radio transmitter.

National Weather Service personnel prepare weather information that is repeated every three to six minutes. Broadcasts include area forecasts for the next seven days, current weather conditions, radar and short-term forecasts, weather summaries, climatic data, river and lake stage readings and other specialized information.

NOAA Weather Radio is useful all the time, but becomes even more important during severe or hazardous winter weather. During episodes of severe weather, normal broadcasts are interrupted and focus shifted to the hazardous weather threat. Watches, warnings and statements are given the highest priority and are updated as conditions change.

In an emergency, each station will transmit a warning alarm tone signal as well as the SAME (Specific Area Message Encoding) codes, followed by information on the emergency situation. These signals are capable of activating specially-designed receivers by producing a visual and/or audible alarm. Not all weather band receivers have this capability, but all radios that receive NOAA Weather Radio can receive the emergency broadcasts. The warning alarm and SAME codes are tested each Wednesday, usually between 11 am and noon, weather permitting.

Commercial radio and television stations as well as cable television companies are encouraged to use NOAA Weather Radio and may freely rebroadcast Weather Radio broadcasts. NOAA Weather Radio is also a major part of the Emergency Alert System (EAS) with improved technology to speed critical weather warning information through commercial broadcast outlets.

NOAA Weather Radio Serving Alabama

Location	Frequency	Location	Frequency
Birmingham	162.550 MHz	Mt. Cheaha	162.475 MHz
Demopolis	162.475 MHz	Dozier	162.550 MHz
Huntsville	162.400 MHz	Fort Payne	162.500 MHz
Florence	162.475 MHz	Texasville	162.475 MHz
Montgomery	162.400 MHz	Tuscaloosa	162.400 MHz
Mobile	162.550 MHz	Cullman	162.450 MHz
Winfield/Guin	162.525 MHz	Jackson	162.500 MHz
Auburn	162.525 MHz	Oneonta	162.425 MHz
Selma	162.450 MHz	Columbus, GA	164.400 MHz
Greenville	162.425 MHz	Meridian, MS	162.550 MHz
Arab	162.525 MHz		

Winter Storm Safety Rules

Keep ahead of a winter storm by listening to the latest weather warnings and bulletins on NOAA Weather Radio, local radio and TV stations, or cable TV. Be alert to changing weather conditions and avoid unnecessary travel.

- Check battery powered equipment. You may have to depend on a portable radio or TV for weather information. Also, check emergency cooking facilities and flashlights.
- Check your supply of heating fuel.
- Check your food and stock an extra supply. Your supplies should include food that requires no cooking or refrigeration in case of power failures. Consider high energy foods such as dried fruit or candy. Don't forget prescription medicines, first aid supplies, and other specialty items.
- Prevent fire hazards due to overheated coal or oil burning stoves, fireplaces, heaters, or furnaces. Remember, in winter storms, emergency equipment can be hampered by extreme weather conditions, too, and often can't respond as quickly.
- Stay indoors during storms and cold snaps , especially the elderly, small children, and others in bad health Avoid overexertion, especially when shoveling snow.
- Make necessary trips for supplies before the storm develops. Arrange for emergency heat in case of power failure, which could last for several days.
- Dress to fit the season. Wear layered, loose fitting clothing. Wear a hat, scarf, and mittens.
- Winterize your home by caulking around openings, installing storm windows, and adding insulation.
- Get your car winterized before the storm season begins. Maintain a checklist of the preparation required. Keep water out of your fuel by keeping your gas tank full.
- Carry a winter storm car kit, especially if you plan cross country travel or anticipate travel in northern states. Items to consider include a mobile phone and charger, blankets or sleeping bags, flashlights and batteries, first aid kit, non-perishable foods, extra clothing, window scraper, water, road maps, small shovel, and kitty litter or sand for traction.
- If the storm exceeds or even tests your limitations, seek available shelter immediately. Plan your travel and select primary and alternate routes.
- Check the latest weather information before departing, and drive carefully and defensively. Avoid traveling alone, and be sure someone knows your travel plans and route of travel.
- Don't forget your pets or livestock. Move animals to sheltered areas. For pets, bring them indoors or provide some form of heat. Provide fresh water since many pets die from dehydration in winter.
storms.

Winter Weather Terminology

Winter Storm Warning: Issued when a combination of heavy snow, heavy freezing rain, or heavy sleet is expected. Winter Storm Warnings are usually issued six to 24 hours before the event is expected to begin.

Winter Storm Watch: Alerts the public to the possibility of a blizzard, heavy snow, freezing rain, or heavy sleet. Winter Storm Watches are usually issued 12 to 36 hours before the beginning of a Winter Storm.

Winter Storm Outlook: Issued prior to a Winter Storm Watch. The Outlook is given when forecasters believe winter storm conditions are possible and usually issued 48 to 60 hours in advance of a Winter Storm.

Wind Chill Advisory: In Alabama, issued when wind chill temperatures are expected to range from zero to ten below zero.

Alabama's Lowest Temperatures

City	Temp	Date
Huntsville	-11	Jan. 30, 1966 & Jan. 21, 1985
Birmingham	-10	Feb. 13, 1899
Montgomery	-5	Feb. 13, 1899
Mobile	-1	Feb. 13, 1899

Most Snow in 24 Hours

City	Amount	Date
Huntsville	11in.	Dec. 31-Jan. 1, 1964
Birmingham	13 in.	Mar. 12-13, 1993
Montgomery	11 in.	Dec. 5-6, 1886
Mobile	6 in.	Feb. 14-15, 1895

Wind Chill Warning: In Alabama, issued when wind chill temperatures are expected to be below ten below zero.

Winter Weather Advisory: Issued for accumulations of snow, freezing rain, freezing drizzle, and sleet which will cause significant inconvenience and moderately dangerous conditions.

Snow Flurries: Light snow falling for short durations with very little or no accumulation.

Snow Showers: Snow falling at varying intensities for a brief time. Some accumulation is possible.

Heavy Snow: In Alabama , snowfall greater than 2 inches in 12 hours is heavy snow.

Average Annual Snowfall

City	Amount
Huntsville	2.5 in.
Birmingham	1.4 in.
Montgomery	0.5 in.
Mobile	0.4 in.

Sleet: Rain drops that freeze into ice pellets before reaching the ground. Sleet usually bounces when hitting a surface and does not stick to objects. However, it can accumulate like snow and cause a hazard to motorists and pedestrians.

Freezing Rain: Rain that falls onto a surface with a temperature below freezing. This causes it to freeze to surfaces, such as trees, cars, and roads, forming a coating or glaze of ice. Even small accumulations of ice can cause a significant hazard.

Freeze Dates for Alabama

City	Avg First	Earliest
Huntsville	Nov. 5	Oct. 9, 2000
Birmingham	Nov. 8	Oct. 18, 1948
Montgomery	Nov. 17	Oct. 20, 1989
Mobile	Nov. 26	Oct. 28, 1957

City	Avg Last	Latest
Huntsville	Mar. 30	May 2, 1909
Birmingham	Mar. 23	Apr. 23, 1986
Montgomery	Mar. 8	Apr. 13, 1940
Mobile	Feb. 27	Apr. 13, 1940

Wind Chill Chart

The wind chill table provided here shows this cooling power for various combinations of wind and temperature. The chart is intended to help gauge how much protection you really need from the cold. To determine the wind chill using the chart below, find the actual outside air temperature on the top line, then read down the left side to the row corresponding to the wind speed. Where the row and columns intersect, read the wind chill factor. For example, if the outside air temperature is zero degrees and the wind speed is 20 miles an hour, the rate of heat loss is equivalent to minis 22 degrees. Colors indicate how quickly frostbite can occur.

Wind (mph) \ Temperature (°F)	Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5		36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
10		34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
15		32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
20		30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
25		29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
30		28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
35		28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
40		27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
45		26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
50		26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
55		25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
60		25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98

Frostbite Times: 30 minutes, 10 minutes, 5 minutes

$$\text{Wind Chill (°F)} = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$$

Where, T= Air Temperature (°F) V= Wind Speed (mph)

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